

Stantec Analytical Validation Checklist**Report No. ATA24**

Project Name: Amtrak North Yard	Project Number: 213402048	
Validator: Sarah Von Raesfeld	Laboratory: Eurofins/Lancaster Laboratory	
Date Validated: 9/27//2018	Laboratory Project Number: 1582808	
Sample Start-End Date: 8/6/2015	Laboratory Report Date: 8/18/2015	
Parameters Validated: Polychlorinated Biphenyls (PCBs) by EPA SW-846 3546/8082 – soil matrix Volatile Organic Compounds (VOCs) by EPA SW-846 5035A/8260B - soil matrix VOCs by EPA SW-846 5030B/8260B – water matrix Moisture Content by SM 2540 G		
Samples Validated: SVE-6(0.5-1.0), LLI # 7996321 SVE-6(9.0-9.5), LLI # 7996322 SVE-5(0.5-1.0), LLI # 7996323 SVE-5(8.5-9.0), LLI # 7996324 SVE-2(0.5-1.0), LLI # 7996325 SVE-3(0.5-1.0), LLI # 7996326 TB20150806, LLI # 7996327		
VALIDATION CRITERIA CHECK		
Validation Flags Applicable to this Review: U The analyte was analyzed for, but not detected above the reported sample quantitation limit. J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. J+ Result is estimated quantity but the result may be biased high. J- Result is estimated quantity but the result may be biased low. UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. NJ The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration. B The analyte was detected in the method, field, and/or trip blank. R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.		
1. Were all the analyses requested for the samples submitted with each COC completed by the lab?	Yes X	No
Comments:		
2. Did the laboratory identify any non-conformances related to the analytical result?	Yes X	No
Comments: The laboratory narrated VOC calibration that did not meet acceptance criteria.		
3. Were sample Chain-of-Custody forms complete?	Yes X	No
Comments:		

4.	Were samples received in good condition and at the appropriate temperature?		Yes X	No
Comments:				
5.	Were sample holding times met?		Yes X	No
Comments:				
6.	Were correct concentration units reported?		Yes X	No
Comments:				
7.	Were detections found in laboratory blank samples?		Yes	No X
Comments:				
8.	Were detections found in field blank, equipment rinse blank, and/or trip blank samples?	NA	Yes	No X
Comments:				
9.	Were instrument calibrations within method criteria?	NA X	Yes	No
Comments: Not Applicable, Level II data validation.				
10.	Were surrogate recoveries within control limits?		Yes X	No
Comments:				
11.	Were laboratory control sample(s) (LCS/LCSD) sample recoveries within control limits?		Yes X	No
Comments:				
12.	Were matrix spike (MS/MSD) recoveries within control limits?	NA X	Yes	No
Comments: A site-specific MS/MSD was not analyzed for this SDG.				
13.	Were RPDs within control limits?		Yes X	No
Comments:				
14.	Were dilutions required on any samples?		Yes X	No
Comments: <u>VOCs</u> : Six soil samples required dilution prior to analysis, dilution factors ranged from 45X to 96X. <u>PCBs</u> : Four soil samples required dilution prior to analysis, dilution factors ranged from 10X to 50X. Sample reporting limits were adjusted accordingly. No data were qualified.				

15. Were Tentatively Identified Compounds (TIC) present?	NA X	Yes	No
Comments: TIC not requested.			
16. Were organic system performance criteria met?	NA X	Yes	No
Comments: Not Applicable, Level II data validation.			
17. Were GC/MS internal standards within method criteria?	NA X	Yes	No
Comments: Not Applicable, Level II data validation.			
18. Were inorganic system performance criteria met?	NA X	Yes	No
Comments:			
19. Were blind field duplicates collected? If so, discuss the precision (RPD) of the results.		Yes	No X
Comments:			
20. Were at least 10 percent of the hard copy results compared to the Electronic Data Deliverable Results?		Yes	No X
Initials SVR			
Comments: At the time data verification was performed, electronic data had not been loaded into the project database, so the comparison of hard copy results to EDD results could not be completed. After the data are loaded into the database, a review of hard copy results versus the electronic data will be performed.			
21. Other?		Yes	No X
Comments:			
PRECISION, ACCURACY, METHOD COMPLIANCE AND COMPLETENESS ASSESSMENT			
Precision:	Acceptable X	Unacceptable	Initials SVR
Comments:			
Sensitivity:	Acceptable X	Unacceptable	Initials SVR
Comments:			
Accuracy:	Acceptable X	Unacceptable	Initials SVR
Comments:			
Representativeness:	Acceptable X	Unacceptable	Initials SVR
Comments:			
Method Compliance:	Acceptable X	Unacceptable	Initials SVR

Comments:			
Completeness:	Acceptable X	Unacceptable	Initials SVR
Comments:			